

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: HUNTRESS POND	Lake Area (ha):	21.53
Town: BARNSTEAD	Maximum depth (m):	6.1
County: Belknap	Mean depth (m):	2.7
River Basin: Merrimack	Volume (m <sup>3</sup> ):	577500
Latitude: 43°21'05" N	Relative depth:	1.2
Longitude: 71°16'34" W	Shore configuration:	1.28
Elevation (ft): 621	Areal water load (m/yr):	1.35
Shore length (m): 2100	Flushing rate (yr <sup>-1</sup> ):	0.50
Watershed area (ha): 62.2	P retention coeff.:	0.86
% watershed ponded: 0.0	Lake type:	natural w/dam

<u>BIOLOGICAL:</u>		8 January 1998	23 June 1997
DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 70%	TABELLARIA 60%
	#2	MALLOMONAS 20%	ASTERIONELLA 20%
	#3		DINOBRYON 8%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			10.79
DOM. ZOOPLANKTON (% TOTAL)	#1	PERITRICH CILIATE 70%	ROTIFER SPP. 22%
	#2	CALANOID COPEPOD 7%	ASPLANCHNA 20%
	#3	BOSMINA 6%	KERATELLA 15%
ROTIFERS/LITER		42	198
MICROCRUSTACEA/LITER		106	19
ZOOPLANKTON ABUNDANCE (#/L)		490	237
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			2.8
BOTTOM DISSOLVED OXYGEN (mg/L)			4.2
BACTERIA (E. coli, #/100 ml)	#1		5
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 3.3  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : None

**CHEMICAL:**

Lake: HUNTRESS POND  
Town: BARNSTEAD

	8 January 1998		23 June 1997		
DEPTH (m)	2.0	4.0	2.0		4.0
pH (units)	6.4	5.8	6.2		6.5
A.N.C. (Alkalinity)	2.1	2.2	2.4		3.3
NITRATE NITROGEN	< 0.05	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.30	0.40	0.20		0.10
TOTAL PHOSPHORUS	0.010	0.012	0.018		0.024
CONDUCTIVITY ( $\mu$ mhos/cm)	31.4	31.1	29.8		30.1
APPARENT COLOR (cpu)	20	20	13		19
MAGNESIUM			0.50		
CALCIUM			1.3		
SODIUM			3.1		
POTASSIUM			0.67		
CHLORIDE	4	4	3		3
SULFATE	2	2	2		2
TN : TP	30	33	11		4
CALCITE SATURATION INDEX			4.6		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 1997**

D.O. S.D. PLANT CHL TOTAL CLASS

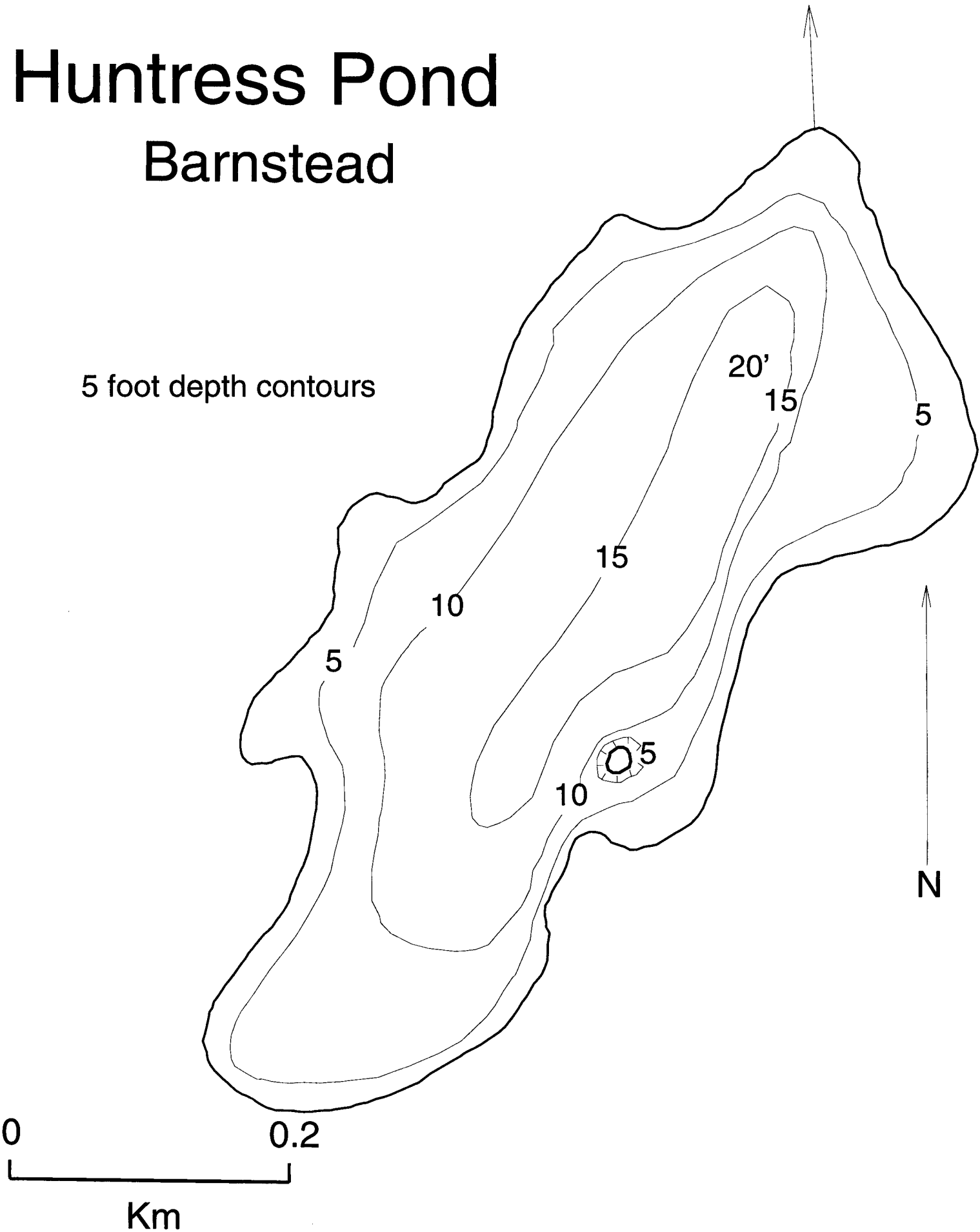
**	3	1	2	6	Meso.
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**COMMENTS:**

1. Previously known as Pinkham Pond.
2. This pond was previously surveyed and classified in 1982, and was rated eutrophic in 1982. The difference in water quality between the two years was in chlorophyll and dissolved oxygen. The pond had an *Oscillatoria* (blue-green algae) bloom on the 1982 sampling date, with a chlorophyll value double the 1997 value. Although the thermal stratification was similar in both years, there was essentially no dissolved oxygen at 5 meters in 1982 (it was 4.2 mg/L in 1997.)
3. Interestingly, the zooplankton abundance was greater in the winter than the summer.

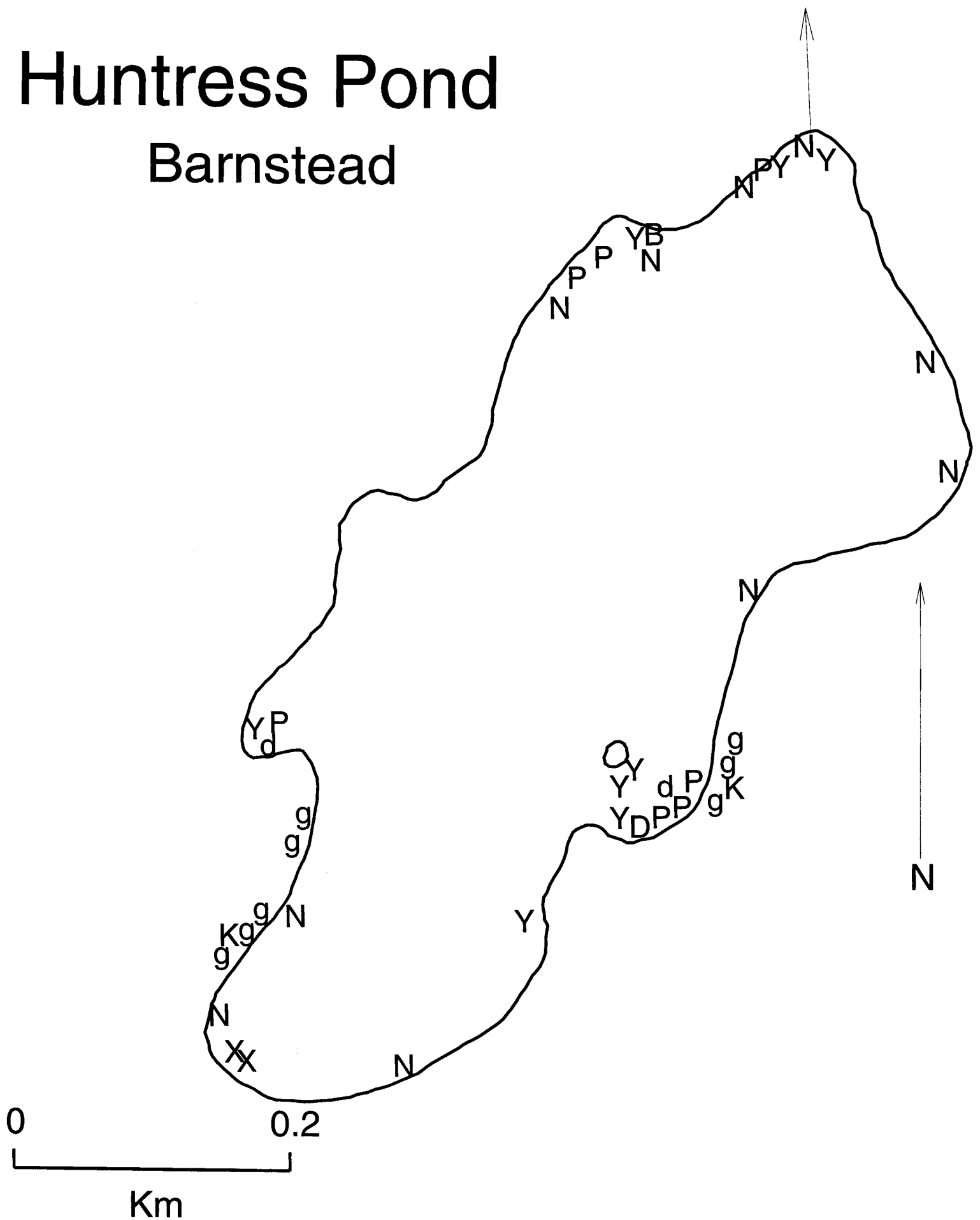
# Huntress Pond

## Barnstead



# Huntress Pond

## Barnstead



LAKE: HUNTRESS POND  
DATE: 06/23/97

**WEATHER: SUNNY & WINDY**

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SECCHI DISK (m):  2.8
BOTTOM DEPTH (m):  5.6
TIME: 1150
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\*Dissolved oxygen values are in mg/L

[illegible]